<u>RAW SEQUENCE LISTING</u>

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Application Serial Number: _10/568,737A_

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RAW SEQUENCE LISTING   DATE: 02/01/2007
PATENT APPLICATION: US/10/568,737A   TIME: 08:37:20

        Input Set : F:\436uspc.app.txt
        Output Set: N:\CRF4\02012007\J568737A.raw

     4 <110> APPLICANT: Rioux, Stephane
     5   Martin, Denis
     6   Hamel, Josee
     7   Brodeur, Bernard R.
     8   Rheault, Patrick
     9   Droun, Nathalie
    11 <120> TITLE OF INVENTION: POLYPEPTIDES OF STREPTOCOCCUS PYOGENES
    13 <130> FILE REFERENCE: 484112.436USPC
    15 <140> CURRENT APPLICATION NUMBER: 10/568,737A
C--> 16 <141> CURRENT FILING DATE: 2006-02-15
    18 <150> PRIOR APPLICATION NUMBER: PCT/CA2004/001510
    19 <151> PRIOR FILING DATE: 2004-08-16
    21 <150> PRIOR APPLICATION NUMBER: US 60/495,094
    22 <151> PRIOR FILING DATE: 2003-08-15
    24 <160> NUMBER OF SEQ ID NOS: 46
    26 <170> SOFTWARE: PatentIn version 3.3
    28 <210> SEQ ID NO: 1
    29 <211> LENGTH: 537
    30 <212> TYPE: DNA
    31 <213> ORGANISM: Streptococcus pyogenes
    33 <400> SEQUENCE: 1
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    36 attgaaatca aagttgaagg gactgaaatc acagttgtac gtcctaacga ctcaaaagaa   180
    37 atgaaaacaa tccatggtac aacccgtgct aacttgaata acatggttgt aggtgtttct   240
    38 gaaggtttca aaaaagatct tgaaatgaag ggtgtcggtt accgtgctca acttcaaggt   300
    39 actaaacttg tcctttcagt aggtaaatct caccaagacg aagttgaagc tccagaagga   360
    40 attactttca ctgttgctaa cccaacttca atctcagttg aaggaatcaa caaagaagtt   420
    41 gttggtcaaa cagctgctta catccgtagc ttgcgttcac cagagcctta caaaggcaaa   480
    42 gggatccgtt acgttggtga atacgtacgc cttaagaag gtaaaacagg taaataa   537
    45 <210> SEQ ID NO: 2
    46 <211> LENGTH: 178
    47 <212> TYPE: PRT
    48 <213> ORGANISM: Streptococcus pyogenes
    50 <400> SEQUENCE: 2
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    53 Leu Thr Asn Asn Asn Asn Val Ile Thr Val Lys Gly Pro Lys Gly Glu
    54   20   25   30
    55 Leu Thr Arg Glu Phe Asn Lys Asn Ile Glu Ile Lys Val Glu Gly Thr
    56   35   40   45
    57 Glu Ile Thr Val Val Arg Pro Asn Asp Ser Lys Glu Met Lys Thr Ile
    58   50   55   60

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60 65                  70              75              80
61 Glu Gly Phe Lys Lys Asp Leu Glu Met Lys Gly Val Gly Tyr Arg Ala
62              85              90              95
63 Gln Leu Gln Gly Thr Lys Leu Val Leu Ser Val Gly Lys Ser His Gln
64              100             105             110
65 Asp Glu Val Glu Ala Pro Glu Gly Ile Thr Phe Thr Val Ala Asn Pro
66          115             120             125
67 Thr Ser Ile Ser Val Glu Gly Ile Asn Lys Glu Val Val Gly Gln Thr
68       130             135             140
69 Ala Ala Tyr Ile Arg Ser Leu Arg Ser Pro Glu Pro Tyr Lys Gly Lys
70 145             150             155             160
71 Gly Ile Arg Tyr Val Gly Glu Tyr Val Arg Leu Lys Glu Gly Lys Thr
72              165             170             175
73 Gly Lys
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77 <211> LENGTH: 1269
78 <212> TYPE: DNA
79 <213> ORGANISM: Streptococcus pyogenes
81 <400> SEQUENCE: 3
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84 tctagtgtca acaaagtaaa agccttaacc ataaaagaag ccatggaaca aggaaaagat     180
85 atcagcttga ccttagctgg cgaagtaaca gctaacaaca gcagcaaagt caaaatcgac     240
86 tcaagtaaag gagaagtcaa agaggtcttt gttaaaaaag gcgatgttgt caaagtagga     300
87 caacccttgt ttagctatga aacgtcacag cggttaacgg ctcaaagttc agaatttgat     360
88 gttcaaacca aagccaatca gctccaagtt gctaaaacca atgcagcatt gaagtgggaa     420
89 acctacaatc gcaaggtcaa tgaaatcaac accctaaaat ctcgctacaa cactgcacca     480
90 gatgagagct tactagagca aattcgcagc gcagaagaca gtgtatccca agcactaagc     540
91 gatgccaaaa cagcagatag cgatgtcaaa accgctcaaa tcgaactcga taaagctaat     600
92 gctactgcca caacggaaaa aggtaaacta gagtatgaca ccgttaagtc agacaccgca     660
93 ggaaccattg ttagtctaaa tactgatttg ccaaatcaat caaaatccaa aaaagaaat      720
94 gaacttttta tggaaattat cgacaaatca aaaatgttag tcaaaggtaa cattagtgaa     780
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96 tctaaaaaat ggactggaaa agtaacccaa gttggcaacc tcaaagcaga ggaaaaaggc     900
97 caaggtcaag gccaaggtgg caatgaccaa caagataatc caaaccaagc aaaattccct     960
98 tatgttattg aacttgacca atcagacaag cagccactca ttggctcaca cacctatgtt    1020
99 aatgtgctca caatgttccc agaagctggc aagatcgtat tgaaagaaac ctttacaatg    1080
100 gcagaaaatg gaaaaaccta tgtgtggaaa gttgataaaa acaaggtcaa aaaacaagaa    1140
101 atcaagacta gcccttctc aaaaggttat gttgaggtaa caagtggctt gactatgcaa    1200
102 gataagattg ctcagccgct tcctggcatg aaagacggta tggaggtagg aagtattgtt    1260
103 aaaccttaa                                                           1269
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107 <211> LENGTH: 422
108 <212> TYPE: PRT
109 <213> ORGANISM: Streptococcus pyogenes
111 <400> SEQUENCE: 4
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115              20              25              30
116 Asn His Gln Gln Gln Glu Ile Val Ser Ser Val Asn Lys Val Lys Ala
117          35              40              45
118 Leu Thr Ile Lys Glu Ala Met Glu Gln Gly Lys Asp Ile Ser Leu Thr
119     50              55              60
120 Leu Ala Gly Glu Val Thr Ala Asn Asn Ser Ser Lys Val Lys Ile Asp
121 65              70              75              80
122 Ser Ser Lys Gly Glu Val Lys Glu Val Phe Val Lys Lys Gly Asp Val
123              85              90              95
124 Val Lys Val Gly Gln Pro Leu Phe Ser Tyr Glu Thr Ser Gln Arg Leu
125              100             105             110
126 Thr Ala Gln Ser Ser Glu Phe Asp Val Gln Thr Lys Ala Asn Gln Leu
127          115             120             125
128 Gln Val Ala Lys Thr Asn Ala Ala Leu Lys Trp Glu Thr Tyr Asn Arg
129      130             135             140
130 Lys Val Asn Glu Ile Asn Thr Leu Lys Ser Arg Tyr Asn Thr Ala Pro
131 145             150             155             160
132 Asp Glu Ser Leu Leu Glu Gln Ile Arg Ser Ala Glu Asp Ser Val Ser
133              165             170             175
134 Gln Ala Leu Ser Asp Ala Lys Thr Ala Asp Ser Asp Val Lys Thr Ala
135              180             185             190
136 Gln Ile Glu Leu Asp Lys Ala Asn Ala Thr Ala Thr Thr Glu Lys Gly
137          195             200             205
138 Lys Leu Glu Tyr Asp Thr Val Lys Ser Asp Thr Ala Gly Thr Ile Val
139      210             215             220
140 Ser Leu Asn Thr Asp Leu Pro Asn Gln Ser Lys Ser Lys Lys Glu Asn
141 225             230             235             240
142 Glu Thr Phe Met Glu Ile Ile Asp Lys Ser Lys Met Leu Val Lys Gly
143              245             250             255
144 Asn Ile Ser Glu Phe Asp Arg Asp Lys Leu Lys Ile Gly Gln Lys Val
145              260             265             270
146 Glu Val Ile Asp Arg Lys Asp Asn Ser Lys Lys Trp Thr Gly Lys Val
147      275             280             285
148 Thr Gln Val Gly Asn Leu Lys Ala Glu Glu Lys Gly Gln Gly Gln Gly
149      290             295             300
150 Gln Gly Gly Asn Asp Gln Gln Asp Asn Pro Asn Gln Ala Lys Phe Pro
151 305             310             315             320
152 Tyr Val Ile Glu Leu Asp Gln Ser Asp Lys Gln Pro Leu Ile Gly Ser
153              325             330             335
154 His Thr Tyr Val Asn Val Leu Asn Asn Val Pro Glu Ala Gly Lys Ile
155          340             345             350
156 Val Leu Lys Glu Thr Phe Thr Met Ala Glu Asn Gly Lys Thr Tyr Val
157      355             360             365
158 Trp Lys Val Asp Lys Asn Lys Val Lys Lys Gln Glu Ile Lys Thr Lys
159      370             375             380
160 Pro Phe Ser Lys Gly Tyr Val Glu Val Thr Ser Gly Leu Thr Met Gln
161 385             390             395             400
162 Asp Lys Ile Ala Gln Pro Leu Pro Gly Met Lys Asp Gly Met Glu Val
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165                    420
167 <210> SEQ ID NO: 5
168 <211> LENGTH: 885
169 <212> TYPE: DNA
170 <213> ORGANISM: Streptococcus pyogenes
172 <400> SEQUENCE: 5
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174 gtgaatcagc accctaaaac ggctaaagag actgaacagc agagaattgt agccacttcg   120
175 gttgctgtgg ttgatatctg tgaccgttta aatttagacc tcgttggggt ttgtgatagt   180
176 aaattatata cccttcctaa acgctatgat gctgttaagc gtgtgggttt acccatgaat   240
177 cctgatatag agttgattgc ttctttgaaa ccaacttgga ttttgagtcc caattcttta   300
178 caagaagatt tggaacccaa gtatcaaaaa ttggatactg agtatggttt tttgaactta   360
179 cgaagtgttg agggcatgta ccagtccatt gatgatttag ggaacctttt ccaacgtcaa   420
180 caagaagcaa aagaattgcg ccagcaatac caggactatt atcgtgcttt ccaagctaaa   480
181 cgtaagggga agaaaaagcc taaagtgctt attcttatgg gcttgccagg tagttatttg   540
182 gtggcgacga accaatctta tgtagggaat cttttggact tggcaggtgg tgagaatgtt   600
183 tatcagtcag atgagaaaga atttctatca gctaatcctg aagacatgct ggctaaggag   660
184 cctgacttga ttttacgaac agctcatgcc attccagaca aggtaaaagt gatgtttgac   720
185 aaagaatttg ctgaaaatga tatttggaaa cattttacgg cagtcaagga agggaaagtc   780
186 tatgatttgg acaatacccct gtttggcatg agtgctaaat tgaactaccc agaagccttg   840
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190 <211> LENGTH: 294
191 <212> TYPE: PRT
192 <213> ORGANISM: Streptococcus pyogenes
194 <400> SEQUENCE: 6
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197 Leu Val Ala Cys Val Asn Gln His Pro Lys Thr Ala Lys Glu Thr Glu
198              20                  25                  30
199 Gln Gln Arg Ile Val Ala Thr Ser Val Ala Val Val Asp Ile Cys Asp
200          35                  40                  45
201 Arg Leu Asn Leu Asp Leu Val Gly Val Cys Asp Ser Lys Leu Tyr Thr
202      50                  55                  60
203 Leu Pro Lys Arg Tyr Asp Ala Val Lys Arg Val Gly Leu Pro Met Asn
204 65                  70                  75                  80
205 Pro Asp Ile Glu Leu Ile Ala Ser Leu Lys Pro Thr Trp Ile Leu Ser
206                  85                  90                  95
207 Pro Asn Ser Leu Gln Glu Asp Leu Glu Pro Lys Tyr Gln Lys Leu Asp
208              100                 105                 110
209 Thr Glu Tyr Gly Phe Leu Asn Leu Arg Ser Val Glu Gly Met Tyr Gln
210          115                 120                 125
211 Ser Ile Asp Asp Leu Gly Asn Leu Phe Gln Arg Gln Gln Glu Ala Lys
212          130                 135                 140
213 Glu Leu Arg Gln Gln Tyr Gln Asp Tyr Tyr Arg Ala Phe Gln Ala Lys
214 145                 150                 155                 160
216 Arg Lys Gly Lys Lys Lys Pro Lys Val Leu Ile Leu Met Gly Leu Pro
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```
217                    165                170                175
218 Gly Ser Tyr Leu Val Ala Thr Asn Gln Ser Tyr Val Gly Asn Leu Leu
219                    180                185                190
220 Asp Leu Ala Gly Gly Glu Asn Val Tyr Gln Ser Asp Glu Lys Glu Phe
221              195                200                205
222 Leu Ser Ala Asn Pro Glu Asp Met Leu Ala Lys Glu Pro Asp Leu Ile
223       210                215                220
224 Leu Arg Thr Ala His Ala Ile Pro Asp Lys Val Lys Val Met Phe Asp
225 225                    230                235                240
226 Lys Glu Phe Ala Glu Asn Asp Ile Trp Lys His Phe Thr Ala Val Lys
227                    245                250                255
228 Glu Gly Lys Val Tyr Asp Leu Asp Asn Thr Leu Phe Gly Met Ser Ala
229              260                265                270
230 Lys Leu Asn Tyr Pro Glu Ala Leu Asp Thr Leu Thr Gln Leu Phe Asp
231       275                280                285
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235 <210> SEQ ID NO: 7
236 <211> LENGTH: 34
237 <212> TYPE: DNA
238 <213> ORGANISM: Artificial Sequence
240 <220> FEATURE:
241 <223> OTHER INFORMATION: Oligonucleotide primer
243 <400> SEQUENCE: 7
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250 <213> ORGANISM: Artificial Sequence
252 <220> FEATURE:
253 <223> OTHER INFORMATION: Oligonucleotide primer
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265 <223> OTHER INFORMATION: Oligonucleotide primer
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VERIFICATION SUMMARY   DATE: 02/01/2007
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